

CLAIMS

1. In apparatus for making a packing material having air-filled chambers with rows of perforations extending across the material between adjacent ones of the chambers: means engagable with an edge portion of the material for feeding the material at a predetermined speed, and a tear roller
5 having a surface that rotates faster than the predetermined speed and is intermittently engagable with the edge portion for exerting an abrupt periodic pull on the material which produces a partial tearing along the rows of perforations.
2. The apparatus of Claim 1 wherein the surface of the tear roller has an arcuate section which periodically engages the edge portion of the material and a section adjacent to the arcuate section which remains out of driving engagement the material.
3. The apparatus of Claim 1 wherein the means for feeding the material at a predetermined speed comprises a feed roller with a surface in continuous driving engagement with the material.
4. The apparatus of Claim 3 wherein the tear roller is larger in diameter than the feed roller.
5. The apparatus of Claim 3 wherein the tear roller rotates faster than the feed roller.
6. In a method of making a packing material having air-filled chambers with rows of perforations extending across the material between adjacent ones of the chambers, the steps of: feeding the material at a predetermined speed, and periodically exerting an abrupt pull on the material as it is being
5 fed at the predetermined speed to produce a partial tearing of the material along the rows of perforations.

7. The method of Claim 6 wherein the material is fed at the predetermined speed by continuously engaging an edge portion of the material with a feed roller.

8. The method of Claim 6 wherein the abrupt pull is exerted on the material by engaging an edge portion of the material with a roller having an interrupted surface with an arcuate section which engages the material to exert the pull only during a portion of a rotation of the roller.

9. Apparatus for making air-filled packing material from an elongated strip of preconfigured film having a plurality of uninflated chambers formed between two layers of the film with rows of perforations extending across the film between successive ones of the chambers, comprising: means for
5 injecting air between the layers to inflate the chambers, means for sealing the chambers to retain the air in them, means engagable with an edge portion of the film for feeding the material along a path at a predetermined speed, and a tear roller having a surface that rotates faster than the predetermined
10 speed and is intermittently engagable with the edge portion for exerting an abrupt periodic pull on the material which produces a partial tearing along the rows of perforations between the inflated chambers.

10. The apparatus of Claim 9 wherein the surface of the tear roller has an arcuate section which periodically engages the edge portion of the material and a section adjacent to the arcuate section which remains out of driving engagement the material.

11. The apparatus of Claim 9 wherein the means for feeding the material at a predetermined speed comprises a feed roller with a surface in continuous driving engagement with the material.

12. The apparatus of Claim 11 wherein the tear roller is larger in diameter than the feed roller.

13. The apparatus of Claim 11 wherein the tear roller rotates faster than the feed roller.

14. A method of making air-filled packing material from an elongated strip of preconfigured film having a plurality of uninflated chambers formed between two layers of the film with rows of perforations extending across the film between successive ones of the chambers, comprising the steps of:
5 injecting air between the layers to inflate the chambers, sealing the chambers to retain the air in them, feeding the material along a path at a predetermined speed, and intermittently engaging an edge portion of the material with a tear roller having a surface that rotates faster than the predetermined speed for exerting an abrupt periodic pull on the material which produces a partial
10 tearing along the rows of perforations between the inflated chambers.

15. Apparatus for pre-tearing a film material having a plurality of longitudinally spaced sections with rows of perforations extending across the material between successive ones of the sections, comprising: means
5 engagable with an edge portion of the material for feeding the material at a predetermined speed, and a tear roller having a surface that rotates faster than the predetermined speed and is intermittently engagable with the edge portion for exerting an abrupt periodic pull on the material which produces a partial tearing along the rows of perforations.

16. The apparatus of Claim 15 wherein the surface of the tear roller has an arcuate section which periodically engages the edge portion of the material and a section adjacent to the arcuate section which remains out of driving engagement the material.

17. The apparatus of Claim 15 wherein the means for feeding the material at a predetermined speed comprises a feed roller with a surface in continuous driving engagement with the material.

18. The apparatus of Claim 17 wherein the tear roller is larger in diameter than the feed roller.

19. The apparatus of Claim 17 wherein the tear roller rotates faster than the feed roller.

20. A method of pre-tearing a film material having a plurality of longitudinally spaced sections with rows of perforations extending across the material between successive ones of the sections, comprising the steps of: engaging an edge portion of the material with a feed roller to feed the material at a predetermined speed in a direction generally perpendicular to the rows of perforations, and intermittently engaging the edge portion of the material with a tear roller having a surface that rotates faster than the predetermined speed and exerts an abrupt periodic pull on the material to produce a partial tearing along the rows of perforations.